Table 5.1. Summary of species specific attributes relevant to model selection and preliminary recommendation for assessment model.

		Species	Atlantic Cod	Haddock	Yellowtail Flounder	Yellowtail Flounder	Yellowtail Flounder	Atlantic Cod	Witch Flounder
		Stock	Georges Bank	Georges Bank	Georges Bank	S. New England/Mid-Atlantic	Cape Cod/Gulf of Maine	Gulf of Maine	
		code	gbcod	gbhad	gbyt	sneyt	ccyt	gmcod	witch
Attributes of Species, their fisheries and their assessments.		*Chapter*	*A.*	*B.*	*C.*	*D*	*E*	*F*	*G*
Current Status									
Overfishing			yes	no	yes	yes	yes	yes	no
Overfished			yes	yes	yes	yes	yes	yes	no
MSY (mt)			35200	52900	12900	14200	2,300	16600	4375
Rebuilding Program			yes	yes	YES	YES	YES	yes	N
Management									
Linkage to ASMFC fisheries			N	N	N	N	N	N	N
TRAC Linkage to Canadian fisheries			Y	Y	Y	N	N	N	N
Commercial Landings									
Years			1893-2006	1960-2006 (historic CAA could be reconstructed back to 1930s)	1935-2004	1935-2004	1935-2004	1960-2004	1937-2007
Age composition			Yes	Yes	1973-2004	1973-2004	1985-2004	1982-2004	1982-2007
Length composition			YES	YES	YES	YES	YES	YES	YES
Sampling intensity			1 per 100-200 mt	high	High	Medium	High	9-387 tons/sample	high
Sex composition			NO	NO	YES	YES	YES	NO	NO
Recreational Landings									
Relevant?			maybe	Y	N	N	N	Y	N
Sufficient Biological samples?			recent years	I have no idea	NA	NA	NA	Almost	NA
Percent of Recent Landings			1% to 19%	very minor	NA	NA	NA	10-40%	NA
Commercial Discards									
Years of Coverage	direct		1989-2007	1989-2007	1973-2004	1973-2004	1985-2004	1989-2007	1989-2007
	imputed		some years		1935-1972	1935-1972	1935-1984		1982-1988
Estimation methods			D/Kept All	discard haddock: kept all	various	various	various	CodD/CodK	combined ratio d/k_all
Sampling intensity			6-800 trips/yr	obs. Trips ~ 0-30/qtr from 1989-2000, ~20-300/qtr from 2001-2006	Good Recent	Good Recent	Good Recent		high
Biological Information			Y	Y	Y	Y	Y	No	LF only
Magnitude of Estimate			1-14% of catch		1700	2500	350	2-200% of lndgs	<10% of landings
Feasibility of hindcasting?			Unknown	Unknown	NA	NA	NA	Unknown	survey-filter method
Surveys									
Type(s)			NMFS Fall, Spring, Canadian Spring	NMFS Fall, Spring, Canadian Spring	NMFS Fall, Spring, Canadian Spring	NMFS Fall, Spring, Winter	NMFS Fall, Spring, Mass Spring, Fall	NMFS Fall, Spring, Mass Spring, Fall	NMFS Fall, Spring
Years			1963-2007 (NMFS FALL), 1968-2007 (NMFS Spring), 1986-2007 Canada Spring	1963-2007 (NMFS FALL), 1968-2007 (NMFS Spring), 1986-2007 Canada Spring	see Visual Report	see Visual Report	see Visual Report	1963-present	1963+; 1968+; *no conversion factors*
Synoptic?			Y	Yes	YES	YES	NMFS YES, Mass No	Yes	? Yes
Precision									Y (CVs on #/tow and kg/tow)
Age data availability			Y	Y	YES	YES	YES	Yes	Y
Sex data available			Y		YES	YES	YES	Aged fish only	limited

Table 5.1. Summary of species specific attri

		Species	American Plaice	Winter Flounder	Winter Flounder	Winter Flounder	White Hake	Pollock	Redfish
		Stock		Gulf of Maine	S. New England/Mid-Atlantic	Georges Bank			
		code	ampl	gmwin	snewin	gbwin	whake	pollock	redfish
Attributes of Species, their fisheries and their assessments.		*Chapter*	*H*	*I*	*J*	*K*	*L*	*M*	*N*
Current Status									
Overfishing			no	no	yes	yes	yes	no	no
Overfished			yes	no	yes	no	yes	no	no
MSY (mt)			4900	1500	10600	3000	4234	17640	8235
Rebuilding Program			yes	no	yes	no	yes	no	y
Management									
Linkage to ASMFC fisheries			N	Y	Y	Y	N	N	N
TRAC Linkage to Canadian fisheries			N	N	N	N	N	Y	N
Commercial Landings									
Years			1960-2006	1964-2004	1964-2006	1964-2007	1964-2006		
Age composition			1980-2004	1982-2004, Mix of port and observer	yes	1982-2007, no CA age data	1985-2000	Yes	
Length composition			YES	YES	YES	YES, no CA length data	1985-2006	YES	YES
Sampling intensity				low	Moderate	Moderate, but very low 1998-1999	400 Length/ton		
Sex composition			NO	NO	NO	NO	NO	NO	NO
Recreational Landings									
Relevant?			N	Y	Y	N	N	Y	N
Sufficient Biological samples?			NA	Y	N		NA	Unknown	NA
Percent of Recent Landings			NA	15% (recently 6%)	~10%		NA	usually <=5%	NA
Commercial Discards									
Years of Coverage	direct		1989-2007	1989-2007	1989-2007	1989-2007, scallop dredge 1992-2007	1989-2007	1989-2007	1989-2007
	imputed				1981-1988	variable by fleet	1964-1988 average D/K		
Estimation methods			D/Kept All	disc/keptall	D/K all, 1989 onward. Survey method 1981-1988	GBWFL disc wt/wt all spp kept	D/Kept White Hake		
Sampling intensity			5 to 700 trips/yr	low	40 to 1220 trips per year	lg mesh OT = good; scall dredge and sm mesh grndfsh OT = poor			
Biological Information				low		discard len comp			
Magnitude of Estimate			6 to 29% Catch	5%		Low, but increasing in recent yrs	66 to 4400 mt		
Feasibility of hindcasting?			Yes	yes		may use Mayo method	Y		
Surveys									
Type(s)			NMFS Fall, Spring, Mass Spring, Fall	NMFS Fall, Spring, Mass Spring, Fall	NMFS Fall, Spring; MADMF spring, MADM sping, RIDFW spring, RIDFW fal, CTDep	NMFS Fall, Spring, CA spring	NMFS Fall, Spring; ASMFC Shrimp, ME-NH trawl	NMFS Fall, Spring,	
Years				1979-2006	1963-2007	F, 1963-2007; Spr, 1968-2007; CA Spr 1978-2007	1963-2007	1963-present	
Synoptic?			Y	no	Yes	No	NMFS Yes	Yes in SA 5&6	
Precision				med	~20%		~20% CV		
Age data availability			YES	1982-2004	1981-2006	only for US surveys, apply US spr svy ages to CA spr svy data	1982-2000	Yes	
Sex data available			YES	limited	sampled fish only	YES	sampled fish only	Aged fish only	

Table 5.1. Summary of species specific attri

		Species	Ocean Pout	Windowpane Flounder	Windowpane Flounder	Haddock	Halibut
		Stock		Gulf of Maine/Georges Bank	S. New England/Mid-Atlantic	Gulf of Maine	
		code	opout	npane	spane	gmhad	Halibut
Attributes of Species, their fisheries and their assessments.		*Chapter*	*O*	*P*	*Q*	*R*	*S*
Current Status							
Overfishing			no	no	no	no	unk
Overfished			yes	no	yes	yes	yes
MSY (mt)			1500	1000	900	5100	300
Rebuilding Program			Y			yes	yes
Management							
Linkage to ASMFC fisheries			N	N	N	N	N
TRAC Linkage to Canadian fisheries			N	N	N	N	Y
Commercial Landings							
Years			1962-2006	1975-2007	1975-2007		1893-2006
Age composition			NO	NO	NO		no
Length composition			YES	YES	YES	YES	YES
Sampling intensity			low				low
Sex composition			NO	NO	NO	NO	NO
Recreational Landings							
Relevant?			N	N	N	Y	N
Sufficient Biological samples?			NA	NA	NA		NA
Percent of Recent Landings			NA	NA	NA		NA
Commercial Discards							
Years of Coverage	direct		1989-2007	1989-2007	1989-2007	1989-2007	1989-2007
	imputed		1970-1988	YES, varies by yr	only for 1 yr in sm mesh gfish OT fleet		
Estimation methods			combined ratio d/k_all	nwin disc wt/wt all spp kept	swin disc wt/wt all spp kept		combined ratio
Sampling intensity			high	lg mesh OT = good; scall dredge = poor; sm mesh grndfsh OT = moderate	lg mesh OT = moderate; scall dredge = moderate; sm mesh grndfsh OT = good		low
Biological Information			LF only	Scant length data	Scant length data		
Magnitude of Estimate			10x landings	Very high	Very high		half current landings
Feasibility of hindcasting?			Rago's 'abundance scaled' method	low	low		not feasible
Surveys							
Type(s)			NEFSC spring; winter, Mass spring	NMFS Fall	NMFS Fall		NMFS Fall, Spring
Years			1968+; 1994+; 1978+; *conversion factors may not be seasonally appropriate*	1975-2007	1975-2007		1963(or 1968) - 2007
Synoptic?			? Yes				
Precision			Y (CVs on #/tow and kg/tow)				imprecise
Age data availability			N	1999 only	1999 only		no
Sex data available			limited	YES	YES		yes

Table 5.1. Summary of species specific attributes relevant to model selection and preliminary recommendation for assessment model.

Attributes of Species, their fisheries and their assessments.	Species	Atlantic Cod	Haddock	Yellowtail Flounder	Yellowtail Flounder	Yellowtail Flounder	Atlantic Cod	Witch Flounder
	Stock	Georges Bank	Georges Bank	Georges Bank	S. New England/Mid-Atlantic	Cape Cod/Gulf of Maine	Gulf of Maine	
	code	gbcod	gbhad	gbyt	sneyt	ccyt	gmcod	witch
	Chapter	*A.*	*B.*	*C.*	*D*	*E*	*F*	*G*
Assessment Models								
Current/fallback model		VPA	VPA	VPA	VPA	VPA	VPA	VPA
Type: Pool, Aged, Length, Both Length and Age		Age based	Age based	Age based	Age based	Age based	Age based	Age based
Internal vs External estimation of BRP		External	External	External	External	External	External	External
Retrospective Pattern?		Moderate	Weak	Strong	Strong	Strong	Weak	Moderate
Preferred Model		Forward Projection	ASAP	ASAP	ASAP	ASAP	ASAP	VPA
Implementation Level: Assesment v Exploratory		Exploratory	Exploratory	Exploratory	Exploratory	Exploratory	Exploratory	Assessment
Complex Projection Scenarios?		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Linkage to reference points		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Use of Historical landings		Yes	Yes	Yes	Yes	Yes	Yes	No
Retrospective Patterns		To Be Determined	(yet to be examined for ASAP)	YES				Yes
Advantages/disadvantages revealed by simulation studies.			weighting, recruitment deviations, and selectivity constraints control ASAP model results	Flexibility	Flexibility	Flexibility		NA
Relevance of following factors:								
Closed area effects		Highly mobile, less likely	probably affects stock, not measurable at present	Y				
Sexual dimorphism			no strong trends	Y	Y	Y		
Variable natural mortality		Unknown	Probably not serious	Y	Y	Y		
Differences among fleets		Possibly	Commercial Trawl is main significant directed fleet; recreational is negligible	Y	Y	Y		
Assessment Lead		O'Brien	Brooks	Legault	Legault/Cadrin	Legault/Cadrin	Mayo	Wigley

Table 5.1. Summary of species specific attri

Attributes of Species, their fisheries and their assessments.	Species	American Plaice	Winter Flounder	Winter Flounder	Winter Flounder	White Hake	Pollock	Redfish
	Stock		Gulf of Maine	S. New England/Mid-Atlantic	Georges Bank			
	code	ampl	gmwin	snewin	gbwin	whake	pollock	redfish
	Chapter	*H*	*I*	*J*	*K*	*L*	*M*	*N*
Assessment Models								
Current/fallback model		VPA	VPA	VPA	ASPIC	AIM	AIM	RED
Type: Pool, Aged, Length, Both Length and Age		Age based	Age based	Age based	biomass pool	biomass pool	biomass pool	Age based
Internal vs External estimation of BRP		External	External	External	Internal	Internal F, External B	Internal F, External B	Internal
Retrospective Pattern?		Weak	Strong	Strong	Moderate	NA	NA	NA
Preferred Model		VPA	SCALE	VPA	VPA or ASAP	AIM	AIM	STATCAM
Implementation Level: Assesment v Exploratory		Assessment	Exploratory	Assessment	VPA Assessment; ASAP exploratory	Assessment	Assessment	Assessment
Complex Projection Scenarios?		Yes	No	Yes	Yes	No	No	
Linkage to reference points		Yes		Yes	Not with ASPIC	Yes, F only	Yes, F only	
Use of Historical landings		No	No	No	No	No	No	Yes
Retrospective Patterns		Moderate	Yes	Yes	ASPIC = no; VPA = moderate (F underest.)			
Advantages/disadvantages revealed by simulation studies.		NA	less sensitive to low sampling	NA	Unknown		NA	NA
Relevance of following factors:								
Closed area effects		NA	yes	Unknown	High	Potentially		
Sexual dimorphism		Yes	yes	Unknown	Unknown	Potentially		
Variable natural mortality		Unknown	yes	Unknown	Unknown	Potentially		
Differences among fleets		No		Unknown	Unknkown	Potentially		
Assessment Lead		O'Brien	Nitschke	Terceiro	Hendrickson	Sosebee	Mayo	Miller

Table 5.1. Summary of species specific attri

Attributes of Species, their fisheries and their assessments.	Species	Ocean Pout	Windowpane Flounder	Windowpane Flounder	Haddock	Halibut
	Stock		Gulf of Maine/Georges Bank	S. New England/Mid-Atlantic	Gulf of Maine	
	code	opout	npane	spane	gmhad	Halibut
	Chapter	*O*	*P*	*Q*	*R*	*S*
Assessment Models						
Current/fallback model		AIM	AIM	AIM	AIM	NONE
Type: Pool, Aged, Length, Both Length and Age		biomass pool	biomass pool	biomass pool	biomass pool	biomass pool
Internal vs External estimation of BRP		Internal F, External B	Internal F, External B	Internal F, External B	Internal F, External B	External B
Retrospective Pattern?		No	No	No	No	No
Preferred Model		AIM	SCA	SCA	VPA	stock reduction analysis
Implementation Level: Assesment v Exploratory		Assessment	Exploratory	Exploratory	Exploratory	exploratory
Complex Projection Scenarios?		No	No	No	No	No
Linkage to reference points		Yes, F only	Yes	Yes	Yes	Yes, B only
Use of Historical landings		No	No	No		yes
Retrospective Patterns			Unknown	Unknown	Unknown	
Advantages/disadvantages revealed by simulation studies.		NA	Unknown	Unknown		
Relevance of following factors:						
Closed area effects			High	Low		minimal
Sexual dimorphism			Unknown	Unknown		yes
Variable natural mortality			Unknown	Unknown		
Differences among fleets			Unknown	Unknown		
Assessment Lead		Wigley	Hendrickson	Hendrickson	Palmer	Col